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EXAMINER

HOFFMAN, BRANDON S

|          |              |
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| ART UNIT | PAPER NUMBER |
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2136

DATE MAILED: 02/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                                       |                                       |  |
|------------------------------|---------------------------------------|---------------------------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>10/049,217  | <b>Applicant(s)</b><br>SAKO, YOICHIRO |  |
|                              | <b>Examiner</b><br>Brandon S. Hoffman | <b>Art Unit</b><br>2136               |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 22 November 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-44 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-44 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

1. Claims 1-44 are pending in this office action.
2. Applicant's arguments with respect to claims 1-44 have been considered but are moot in view of the new ground(s) of rejection.

### *Claim Rejections*

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

### *Claim Rejections - 35 USC § 103*

4. Claims 1-5, 8-15, and 18-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rhoads et al. (U.S. Patent No. 6,522,769) in view of 4C Entity (4C 12 Bit Watermark Specification, Oct 29, 1999, [www.4centity.com/data/tech/4cspec.pdf](http://www.4centity.com/data/tech/4cspec.pdf)).

Regarding claims 1 and 11, Rhoads et al. teaches a recording medium/method in which a plurality of management information are embedded and recorded into content data in a plurality of forms of different remaining intensities, **the plurality of forms of different remaining intensity comprising a watermark of strong remaining intensity and a watermark of weak remaining intensity, wherein management information written into the watermark of the strong remaining intensity is more**

**severe than the management information written into the watermark of the weaker remaining intensity (col. 14, lines 12-26).**

Rhoads et al. does not teach **wherein the management information written into the watermark of the weaker remaining intensity comprises an International Standard Recording Code (ISRC).**

4C Entity teaches **wherein the management information written into the watermark of the weaker remaining intensity comprises an International Standard Recording Code (ISRC)** (page 3, section 2.2 OPTIONAL DATA, the ISRC code can be included after the CCI information as part of the watermark).

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to combine an ISRC in the second, weaker remaining intensity, as taught by 4C Entity, with the medium/method of Rhoads et al. It would have been obvious for such modifications because the ISRC code uniquely identifies each and every track ever made. By uniquely identifying each and every track ever made, coupled with control information for preventing copying of data, provides an ultimate way of preventing and identifying pirates.

Regarding claims 2 and 12, Rhoads et al. as modified by 4C Entity teaches wherein said management information includes at least one of copy management

information for managing a copying operation of the content data and reproduction management information for managing a reproducing operation of the content data (see col. 13, lines 44-50 of Rhoads et al.).

Regarding claims 3 and 13, Rhoads et al. as modified by 4C Entity teaches wherein said management information is embedded in the content data in a form of a strong remaining intensity by which said management information remains even if a signal process is executed to the content data and in a form of a weak remaining intensity by which said management information is erased by executing a signal process to the content data (see col. 14, lines 27-35 of Rhoads et al.).

Regarding claims 4 and 14, Rhoads et al. as modified by 4C Entity teaches wherein said form of a strong remaining intensity by which said management information is embedded in the content data is a form such that said management information is spread-spectrum diffused and multiplexed into the content data (see col. 27, lines 21-28 of Rhoads et al.).

Regarding claims 5 and 15, Rhoads et al. as modified by 4C Entity teaches wherein said form of the strong remaining intensity by which said management information is embedded in the data of said contents is a form such that said management information is inserted either at one of a first peak and a second peak in a

predetermined range of the content data or at a position near one of said first peak and said second peak (see col. 14, lines 20-23 of Rhoads et al.).

Regarding claims 8 and 18, Rhoads et al. as modified by 4C Entity teaches wherein among said plurality of management information, a managing condition of the management information embedded in the form of the strong remaining intensity by which said management information is embedded in the content data is more severe than that of the management information embedded in the form of the weak remaining intensity by which said management information is embedded in the content data (see col. 14, lines 27-35 of Rhoads et al.).

Regarding claim 9, Rhoads et al. as modified by 4C Entity teaches wherein said management information is a copy management information, the management information embedded in the form of the strong remaining intensity by which said management information is embedded in the content data is a managing condition showing that copying is impossible (see col. 14, lines 16-20 of Rhoads et al.).

Regarding claim 10, Rhoads et al. as modified by 4C Entity teaches wherein when said management information is reproduction management information, the management information embedded in the form of the strong remaining intensity by which said management information is embedded in the content data is a managing

condition showing that reproduction is impossible (see col. 13, lines 44-50 of Rhoads et al.).

Regarding claim 19, Rhoads et al. teaches a recoding method for a recording medium, comprising the steps of:

- Adding first management information to input content data (col. 14, lines 16-20);
- Adding second management information whose remaining intensity is weaker than a remaining intensity of said first management information to the content data to which said first management information has been added (col. 14, lines 27-30); and
- Performing a recording signal process on the content data to which said first and second management information have been added, and recording resultant data into the recording medium (col. 13, lines 61-67).

Rhoads et al. does not teach **wherein the management information written into the watermark of the weaker remaining intensity comprises an International Standard Recording Code (ISRC).**

4C Entity teaches **wherein the management information written into the watermark of the weaker remaining intensity comprises an International Standard Recording Code (ISRC)** (page 3, section 2.2 OPTIONAL DATA, the ISRC code can be included after the CCI information as part of the watermark).

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to combine an ISRC in the second, weaker remaining intensity, as taught by 4C Entity, with the medium/method of Rhoads et al. It would have been obvious for such modifications because the ISRC code uniquely identifies each and every track ever made. By uniquely identifying each and every track ever made, coupled with control information for preventing copying of data, provides an ultimate way of preventing and identifying pirates.

Regarding claim 20, Rhoads et al. as modified by 4C Entity teaches wherein a managing condition by said first management information is more severe than a managing condition by said second management information (see col. 14, lines 27-35 of Rhoads et al.).

Regarding claim 21, Rhoads et al. as modified by 4C Entity teaches wherein each of said first and second management information is copy management information, the managing condition by said first management information is a managing condition showing that copying is impossible (see col. 14, lines 16-20 of Rhoads et al.).

Regarding claims 22 and 27, Rhoads et al. teaches a recoding and/or reproducing method for a recording medium, comprising the steps of:

- Reading out content data from the recoding medium in which at least first management information and second management information whose remaining intensity is weaker than a remaining intensity of said first management information have been embedded and recorded in the data of said contents (col. 14, lines 16-20 and lines 27-30), and discriminating whether said second management information has been detected (col. 14, lines 9-11);
- Wherein when it is determined that said second management information has been detected, a recording and reproducing operation are controlled based on managing condition shown by said second management information (col. 14, lines 6-11).

Rhoads et al. does not teach **wherein the management information written into the watermark of the weaker remaining intensity comprises an International Standard Recording Code (ISRC).**

4C Entity teaches **wherein the management information written into the watermark of the weaker remaining intensity comprises an International Standard Recording Code (ISRC)** (page 3, section 2.2 OPTIONAL DATA, the ISRC code can be included after the CCI information as part of the watermark).

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to combine an ISRC in the second, weaker remaining intensity, as

taught by 4C Entity, with the medium/method of Rhoads et al. It would have been obvious for such modifications because the ISRC code uniquely identifies each and every track ever made. By uniquely identifying each and every track ever made, coupled with control information for preventing copying of data, provides an ultimate way of preventing and identifying pirates.

Regarding claims 23 and 28, Rhoads et al. as modified by 4C Entity teaches wherein when it is determined that said second management information is not detected, the recording and/or reproducing operation are controlled based on said first management information (see col. 14, lines 30-35 of Rhoads et al.).

Regarding claims 24 and 31, Rhoads et al. as modified by 4C Entity teaches wherein the managing condition by said first management information is more severe than a managing condition by said second management information (see col. 13, lines 61-63 of Rhoads et al.).

Regarding claims 25 and 33, Rhoads et al. as modified by 4C Entity teaches

- Wherein when each of said first and second management information is copy management information, the managing condition by said first management information is a managing condition showing that copying is impossible (see col. 14, lines 16-20 of Rhoads et al.), and

- When it is determined that said second management information has been detected, the recording operation is controlled based on said second management information (see col. 14, lines 16-18 of Rhoads et al.), and when it is determined that said second management information is not detected, the recording operation is inhibited based on said first management information (see col. 14, lines 18-20 of Rhoads et al.).

Regarding claims 26 and 34, Rhoads et al. as modified by 4C Entity teaches

- Wherein when each of said first and second management information is reproduction information, the managing condition by said first management information is a managing condition showing that reproduction is impossible (see col. 13, lines 44-50 of Rhoads et al.), and
- When it is determined that said second management information has been detected, the reproducing operation is controlled based on said second management information (see col. 14, lines 16-18 of Rhoads et al.), and when it is determined that said second management information is not detected, the reproducing operation is inhibited based on said first management information (see col. 14, lines 18-20 of Rhoads et al.).

Regarding claim 29, Rhoads et al. as modified by 4C Entity teaches wherein when it is determined that said first management information is not detected, the

recording and/or reproducing operation is controlled based on said second management information (see col. 14, lines 9-11 of Rhoads et al.).

Regarding claim 30, Rhoads et al. as modified by 4C Entity teaches wherein when it is determined that neither said first nor second management information is detected, the recording and/or reproducing operation is controlled based on additional information added to the content data (see col. 6, lines 26-43 of Rhoads et al.).

Regarding claim 32, Rhoads et al. as modified by 4C Entity teaches

- Wherein when each of said first and second management information is copy management information, the managing condition by said first management information is a managing condition showing that copying is impossible (see col. 14, lines 16-20 of Rhoads et al.), and
- When it is determined that said second management information has been detected, the recording operation is controlled based on said second management information (see col. 14, lines 16-18 of Rhoads et al.), and when it is determined that said second management information is not detected, the recording operation is inhibited based on said first management information (see col. 14, lines 18-20 of Rhoads et al.).

Regarding claim 35, Rhoads et al. teaches a copy control method for contents data, the method comprising the steps of:

- Discriminating whether second management information has been detected from the content data in which at least first management information and the second management information whose remaining intensity is weaker than a remaining intensity of said first management information have been added (col. 14, lines 16-20 and lines 27-30); and
- When it is determined that said second management information has been detected, controlling a copying operation of the data of said contents based on a managing condition shown by said second management information (col. 14, lines 6-11).

Rhoads et al. does not teach **wherein the management information written into the watermark of the weaker remaining intensity comprises an International Standard Recording Code (ISRC).**

4C Entity teaches **wherein the management information written into the watermark of the weaker remaining intensity comprises an International Standard Recording Code (ISRC)** (page 3, section 2.2 OPTIONAL DATA, the ISRC code can be included after the CCI information as part of the watermark).

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to combine an ISRC in the second, weaker remaining intensity, as taught by 4C Entity, with the medium/method of Rhoads et al. It would have been

obvious for such modifications because the ISRC code uniquely identifies each and every track ever made. By uniquely identifying each and every track ever made, coupled with control information for preventing copying of data, provides an ultimate way of preventing and identifying pirates.

Regarding claim 36, Rhoads et al. as modified by 4C Entity teaches wherein when it is determined that said second management information is not detected, the copying operation of the data of said contents is controlled based on said first management information (see col. 14, lines 30-35 of Rhoads et al.).

Regarding claim 37, Rhoads et al. as modified by 4C Entity teaches wherein a managing condition by said first management information is more severe than that by said second management information (see col. 13, lines 61-63 of Rhoads et al.).

Regarding claim 38, Rhoads et al. as modified by 4C Entity teaches

- Wherein when each of said first and second management information is copy management information, the managing condition by said first management information is a managing condition showing that copying is impossible (see col. 14, lines 16-20 of Rhoads et al.), and
- When it is determined that said second management information has been detected, the copying operation of the data of said contents is controlled based on said second management information (see col. 14, lines 16-18 of Rhoads et

al.), and when it is determined that said second management information is not detected, the copying operation of the content data is inhibited based on said first management information (see col. 14, lines 18-20 of Rhoads et al.).

Regarding claim 39, Rhoads et al. as modified by 4C Entity teaches wherein when said second management information permits the copying of the contents data the copying operation of the content data is permitted based on said second management information, and said second management information which is added to said content data which is copied is rewritten to a managing condition for inhibiting the copying of the content data (see col. 13, lines 58-67 of Rhoads et al.).

Claims 6, 7, 16, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rhoads et al. (USPN '769) in view of 4C Entity (USPN '456), and further in view of AAPA (Applicant's admitted prior art).

Regarding claims 6 and 16, Rhoads et al. as modified by 4C Entity teaches all the limitations of claims 1 and 3, & 11 and 12, respectively, above. However, Rhoads et al. as modified by 4C Entity does not specifically teach wherein said form of the weak remaining intensity by which said management information is embedded in the content data is a form such that said management information is inserted into lower bits of the content data.

AAPA teaches wherein said form of the weak remaining intensity by which said management information is embedded in the content data is a form such that said management information is inserted into lower bits of the content data (specification, page 1, last paragraph).

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to combine embedding into lower bits of the content data, as taught by AAPA, with the medium/method of Rhoads et al./4C Entity. It would have been obvious for such modifications because lower bit embedding of watermarks is an easy way to provide a weak watermark.

Regarding claims 7 and 17, Rhoads et al. as modified by 4C Entity teaches all the limitations of claims 1 and 3, & 11 and 12, respectively, above. However, Rhoads et al. as modified by 4C Entity does not specifically teach wherein said form of the weak remaining intensity by which said management information is embedded in the content data is a form such that said management information is inserted into a high-order coefficient at the time when the content data have been compressed.

AAPA teaches wherein said form of the weak remaining intensity by which said management information is embedded in the content data is a form such that said management information is inserted into a high-order coefficient at the time when the content data have been compressed (specification, page 1, last paragraph).

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to combine embedding into high-order coefficients when the content data is being compressed, as taught by AAPA, with the medium/method of Rhoads et al./4C Entity. It would have been obvious for such modifications because high-order coefficient embedding of watermarks during compression is an easy way to provide a weak watermark.

Claims 40-44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rhoads et al. (USPN '769) in view of 4C Entity (USPN '456), and further in view of Kuroda et al. (U.S. Patent No. 6,633,723).

Regarding claim 40, Rhoads et al. teaches a reproducing apparatus for reproducing a recording medium, comprising:

- At least first management information and second management information whose remaining intensity is weaker than remaining intensity of said first management information have been embedded and recorded (col. 14, lines 16-20 and lines 27-30);
- Detecting said second management information from the content data read out from said recording medium by said head (col. 14, lines 9-11); and
- A discriminating circuit to which a detection result by said detecting circuit is supplied and which controls an on/off operation of said switching circuit unit

based on a managing condition shown by said second management information when the detection result showing that said second management information has been detected by said detecting circuit is supplied thereto (col. 14, lines 16-18).

Rhoads et al. does not specifically show the circuits described in the reproducing apparatus and does not teach **wherein the management information written into the watermark of the weaker remaining intensity comprises an International Standard Recording Code (ISRC).**

4C Entity teaches **wherein the management information written into the watermark of the weaker remaining intensity comprises an International Standard Recording Code (ISRC)** (page 3, section 2.2 OPTIONAL DATA, the ISRC code can be included after the CCI information as part of the watermark).

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to combine an ISRC in the second, weaker remaining intensity, as taught by 4C Entity, with the medium/method of Rhoads et al. It would have been obvious for such modifications because the ISRC code uniquely identifies each and every track ever made. By uniquely identifying each and every track ever made, coupled with control information for preventing copying of data, provides an ultimate way of preventing and identifying pirates.

Kuroda et al. teaches a read head for reading out content data (fig. 9, ref. num 51), a signal processing unit for performing a signal process to the content data read out from said recording medium by said head (fig. 9, ref. num 60 and col. 22, lines 51-53), a switching circuit unit to which an output signal from said signal processing unit is applied (fig. 9, ref. num 57 and col. 22, lines 11-25), detecting circuit for detecting management information (fig. 9, ref. num 52 and col. 21, lines 35-42), and a discriminating circuit (fig. 9, ref. num 56).

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to combine specific circuits of a reproducing apparatus, as taught by Kuroda et al., with the apparatus of Rhoads et al./4C Entity. It would have been obvious for such modifications because the circuits of Kuroda et al. provide a tangible reproducing device that, when combined with Rhoads et al., provide at least two watermarks used for managing reproducing of generations of data.

Regarding claim 41, Rhoads et al. as modified by 4C Entity/Kuroda et al. teaches wherein when it is determined that said second management information is not detected, the on/off operation of said switching circuit unit is controlled based on said first management information (see col. 14, lines 30-35 of Rhoads et al.).

Regarding claim 42, Rhoads et al. as modified by 4C Entity/Kuroda et al. teaches further comprising a converting unit to which the output signal from said signal

processing unit is supplied and which converts said supplied output signal into an analog signal (see fig. 9, ref. num 64 of Kuroda et al.), and wherein said switching circuit unit has a first switching circuit to which the output signal from said signal processing unit is supplied and a second switching circuit to which an output signal from said converting unit is supplied (see fig. 9, ref. num 57 of Kuroda et al., 57 goes to 58 and 64).

Regarding claim 43, Rhoads et al. as modified by 4C Entity/Kuroda et al. teaches wherein when each of said first and second management information is copy management information on/off operations of said first and second switching circuits are controlled based on a managing condition shown by said second management information (see col. 14, lines 6-11 of Rhoads et al.), and when said second management information cannot be detected, said first switching circuit is turned off based on said first management information (see col. 14, lines 30-35 of Rhoads et al.).

Regarding claim 44, Rhoads et al. as modified by 4C Entity/Kuroda et al. teaches wherein when each of said first and second management information is reproduction management information, on/off operations of said first and second switching circuits are controlled based on managing conditions shown by said second management information (see col. 14, lines 6-11 of Rhoads et al.), and when said second management information cannot be detected, said second switching circuit is turned off based on said first management information (see col. 14, lines 30-35 of Rhoads et al.).

***Response to Arguments***

5. Applicant amends claims 1, 19, 22, 27, 35, and 40.
6. Applicant argues:
  - a. Independent claim 1 does not teach the use of ISRC in the weaker watermark (page 21, first three paragraphs).
  - b. The dependent claims are allowable based on their dependency on the independent claims (page 21, second to last paragraph).

Regarding argument (a), examiner disagrees with applicant. This was a newly added feature to the claim language, and, accordingly, is rejected by a new ground of rejection above.

Regarding argument (b), examiner disagrees with applicant. Based on the response by applicant to argument (a), above, the dependent claims stand as rejected.

***Conclusion***

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brandon S. Hoffman whose telephone number is 571-272-3863. The examiner can normally be reached on M-F 8:30 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz R. Sheikh can be reached on 571-272-3795. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

*Brandon Hoffman*

BH

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